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UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

HYDRO-PHOTON, INC.,
a Maine Corporation

Plaintiff,

v.

MERIDIAN DESIGN, INC., a California
Corporation

Defendant.

Civil Action No. 05-11240 GAO

**PLAINTIFF HYDRO-PHOTON, INC.'S MEMORANDUM IN OPPOSITION TO
DEFENDANT MERIDIAN DESIGN, INC.'S MOTION FOR SUMMARY JUDGMENT
OF NONINFRINGEMENT, AND IN SUPPORT OF PLAINTIFF'S CROSS MOTION
FOR PARTIAL SUMMARY JUDGMENT OF INFRINGEMENT**

This Memorandum is submitted by Plaintiff, Hydro-Photon, Inc. ("HPI"), in opposition to Defendant Meridian Design, Inc.'s Motion for Summary Judgment of Non-Infringement ("MDI's Motion"), and in support of Plaintiff's Cross-Motion for Partial Summary Judgment of Infringement, the latter filed concurrently herewith ("HPI's Cross-Motion").

As demonstrated below, MDI's Motion must be denied because it is premised on an improper construction of the "control means" limitation of claim 7 of HPI's U.S. Patent No. 6,110,424 (the "'424 patent"). Specifically, MDI's attempt to interject the liquid-level sensor limitation of the preferred embodiment of the '424 patent into the structure corresponding to the claimed function of the "control means" limitation of claim 7 is contrary to the intrinsic evidence in this case and to settled case law relating to the proper construction of means-plus-function limitations. Thus, infringement of claim 7 is not avoided even if MDI's accused products do not include a liquid-level sensor or its equivalent.

Even if the Court should agree with MDI's proposed construction of the "control means" limitation, MDI's Motion should also be denied because a genuine issue of material fact exists as to whether MDI's accused products¹ include, or have ever included, a liquid-level sensor or equivalent structure. Representations in literature published by MDI regarding its AquaStar products, both on its web site and in manuals distributed with the products, directly contradict the representations MDI has made to this Court regarding the absence of such a sensor in its products. Furthermore, documents recently produced by MDI, in an initial round of discovery, also indicate that its accused AquaStar products included, at least at one time, a liquid-level sensor. Thus, even if MDI's construction is correct (and it is not), MDI's Motion should be denied, and HPI allowed to proceed with further discovery, so that it can be determined whether it is Meridan's representations to its customers, or those made to this Court, that are false and misleading.

As also demonstrated below, HPI's Cross-Motion should be granted because the proper construction of the "control means" limitation of claim 7 of the '424 patent does not include or require a liquid-level sensor, and because it is apparent from even a casual inspection of MDI's accused AquaStar products, and MDI's own admissions regarding them, that they literally satisfy each and every limitation of that claim. See Claim Chart attached hereto as Exhibit A. Partial summary judgment of infringement of claim 7 of the '424 patent should thus be granted in HPI's favor against MDI.

¹ MDI manufactures and sells two ultraviolet ("UV") light portable water purifier products under the trademarks AquaStar and AquaStar Plus, respectively, which HPI claims infringe at least claim 7 of the '424 patent. See Memorandum in Support of Defendant Meridian Design, Inc.'s Motion for Summary Judgment of Non-Infringement ("MDI's Memo."), p. 3, fn. 1.

Submitted with this Memorandum are the Declaration of Miles Maiden In Support of Hydro-Photon, Inc.’s Cross Motion For Partial Summary Judgment of Infringement (“Maiden Dec.”), Declaration of Kevin Gannon In Support of Hydro-Photon, Inc.’s Cross Motion for Partial Summary Judgment (“Gannon Dec.”), Hydro-Photon, Inc.’s Statement of Disputed Facts In Opposition to Meridian Design, Inc.’s Motion for Summary Judgment (“HPI’s Disputed Fact Statement”), and Hydro-Photon, Inc.’s Statement of Undisputed Facts In Support of Its Cross Motion For Partial Summary Judgment of Infringement (“HPI’s Undisputed Fact Statement”).

I. INTRODUCTION

MDI’s Motion, in effect, asks that the Court find, as a matter of law, that MDI does not now, **and never has**, infringed any claim of the ‘424 patent.² MDI’s Motion contends that its accused AquaStar products fail to satisfy only the “control means” limitation of claim 7 of the ‘424 patent. That limitation, in its entirety, reads “control means for turning the light source on and off.” HPI and MDI agree that this limitation is a means-plus-function limitation in accordance with 35 U.S.C. § 112, ¶ 6. See MDI’s Memo., p. 8-9; Plaintiff’s Statement of Claim Terms Likely to be in Dispute and its Proposed Construction of the Same, filed with the Court on November 10, 2005 (“HPI’s Claim Construction Statement”), p. 10. **HPI and MDI also agree that the claimed function for this limitation is “turning the light source on and off.”** *Id.* The primary issue for purposes of these Motions is thus whether the structures disclosed in the specification of the ‘424 patent that correspond to this claimed function include the liquid level

² It is significant to note that the representations regarding the alleged absence of a liquid level sensor in the accused AquaStar products in the Declaration of Dan Matthews filed in support of MDI’s Motion (“Matthews Dec.”), in Defendant Meridian Design, Inc.’s Statement of Material Facts In Support of its Motion for Summary Judgment of Non-Infringement (“MDI’s Fact Statement”), and in MDI’s Memo., are all phrased in the present tense. No representations are made regarding whether the AquaStar products ever included a liquid level sensor, or whether the current products include such a sensor which has been disconnected or disabled temporarily pending disposition of this action. As discussed in more detail below, this, by itself, requires that MDI’s Motion be denied.

sensor 20 of the preferred embodiment. MDI contends that they do. See MDI's Memo., p. 9. HPI contends that they do not. See HPI's Claim Construction Statement, pp. 10-12. Disposition of these Motions thus depends principally upon the Court's resolution, as a matter of law, of this single, relatively straightforward issue of claim construction.

II. ARGUMENT IN OPPOSITION TO MDI'S MOTION

A. "Corresponding Structure" Is Only That Part of The Disclosed Structure That Performs the Claimed Function

The law states that the structure corresponding to the recited function in a means-plus-function claim limitation is only that part of the structure disclosed in a patent specification that performs the recited function. Structures disclosed in the specification that do not actually perform the recited function, but rather merely enable or improve the performance of the function, are not corresponding structures within the meaning of 35 U.S.C. § 112, par. 6. This is a "hard and fast" rule of claim construction that applies to all claim limitations expressed in means-plus-function form, regardless of the structures disclosed in the specification that relate in one way or another to the recited function. *See, e.g., Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001)(holding that the district court improperly restricted an "air circulation means" limitation to the structure that was disclosed in the preferred embodiment [a recirculating fan], but that was not necessary to perform the recited function of circulating air); *Asyst Technologies, Inc. v. Empack, Inc.*, 268 F.3d 1364, 1369-70 (Fed. Cir. 2001)(holding that a transmission line that transferred digital information to a processor was not part of the structure corresponding to the recited function of "receiving and processing digital information" because it merely enabled the processing by transferring the information to the processor, but did not actually perform the processing); *Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, 145 F.3d 1303, 1308-09 (Fed. Cir. 1998)(holding that structural aspects of a skid plate in

the preferred embodiment of a concrete cutter that did not actually perform the recited function of supporting the surface of the concrete during cutting were not to be read as limiting the scope of the means clause reciting that function); *Axcelis Technologies, Inc. v. Applied Materials, Inc.*, 66 U.S.P.Q.2d 1039, 1041 (D. Mass. 2002)(finding that an “energizing means” recited in a claim for an ion plantation device was not limited by the structural features of the preferred embodiment that improved the “energizing” function but did not actually perform it).

B. The Liquid Level Sensor 20 Does Not Perform Any Part of the Function of Turning the Light Source On and Off

The only structures disclosed in the specification of the ‘424 patent that actually perform the agreed-upon function of turning the light source on and off are the on-off switch 28 and switches that the specification of the ‘424 patent indicates connect and disconnect the power source (e.g., the ballast circuitry 13 and battery 14) and the lamp 12. This fact is evident from the following portions of the ‘424 patent specification (see Exhibit 1 to MDI’s Memo.):

“The user controls the system with an on-off switch 28.”
‘424 patent, col. 2, l. 8

“The user turns the system 10 on by moving the on-off switch 28 to the appropriate position.”
‘424 patent, col. 2, l. 21-23

“A liquid-level sensor 20, which is connected to switches (not shown) between the lamp 12, and the ballast circuitry 13 and ballast 14, prevents the UV lamp from turning on until it is fully immersed in water.”
‘424 patent, col. 2, l. 45-48

“When the liquid-level sensor 20 determines that the lamp is fully immersed in the water, the sensor closes the switches (not shown) that separate the ballast circuitry 13 and the battery 14 (FIG. 1) from the lamp 12, and the lamp then turns on.”
‘424 patent, col. 3, l. 33-37

The liquid level sensor 20 of the preferred embodiment of the '424 patent does not turn the light source on and off. As clearly stated in the '424 patent specification, the liquid level sensor 20 controls switches between the power source (e.g., the ballast circuitry 13 and battery 14) and the lamp 12 in a way that prevents those switches from turning the light source on if water is not sensed by the sensor 20. See '424 patent, col. 2, l. 45-48; col. 3, l. 33-37. Notwithstanding this control, the liquid level sensor 20 itself does not turn the light source on and off - - only the on-off switch 28 and switches between the power source and lamp 12 perform that function.

In fact, the liquid-level sensor 20 performs a function that is different from the function of turning the light source on and off. Specifically, the liquid-level sensor 20 prevents the light source from turning on if water is not sensed. '424 patent, col. 2, l. 45-48; claim 8. Preventing the light source from turning on, and turning the light source on, are clearly separate and distinct functions.

The liquid level sensor 20 is no more part of the "corresponding structure" of the "control means" limitation of claim 7 of the '424 patent than a user of the purifier system. See, e.g., *Asyst Technologies*, 268 F.3d at 1371 ("while an electrical outlet enables a toaster to operate, the outlet is not considered to be part of the toaster"). Just as a user controls the on-off switch 28 of the '424 patent purifier to cause it to turn the light source on (see '424 patent, col. 2, l. 8), the liquid level sensor 20 in the preferred embodiment controls the switches that connect the power source to the lamp 12 so that those switches prevent the lamp from turning on if water is not sensed by the sensor 20. In either case, the function of turning the light source on and off is being performed by the switches, not by the user, the liquid level sensor 20 or any other structures that control those switches. Only the switches are thus structures corresponding to the agreed-upon

claimed function of turning the light source on and off. See *Wenger Mfg.*, 239 F.3d at 1263; *Asyst Technologies*, 268 F.3d at 1369-70; *Axcelis Technologies*, 66 U.S.P.Q.2d at 1041.

MDI attempts to muddle the law regarding structures corresponding to means-plus-function limitations by arguing that the ‘424 patent discloses only a single embodiment that includes the liquid level sensor and that, because of this, the sensor should rightfully be part of the “control means” of claim 7. MDI Memo., pp. 9-10. However, this argument violates a long-standing prohibition against importing limitations into claims from the specification, even when only a single embodiment is disclosed, unless the specification makes it clear that “the patentee ... intends for the claims and the embodiments in the specification to be strictly coextensive.” See *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005)(en banc). No such intent can be gleaned from the specification of the ‘424 patent.³

As discussed in sub-section D below, it is also abundantly clear from the prosecution history of the ‘424 patent that the patentee did not intend that all of the claims in the ‘424 patent, including particularly claim 7, be limited to systems having a liquid level sensor.

C. HPI’s Construction of the Corresponding Structure For the “Control Means” Limitation is Confirmed By the Doctrine of Claim Differentiation

That the corresponding structure of the “control means” limitation of claim 7 of the ‘424 patent does not include or require a liquid level sensor is confirmed by the doctrine of claim differentiation. A “liquid-level sensor that prevents the light source from turning on” is expressly recited in claim 8 of the ‘424 patent, which depends directly from claim 7. The law presumes that these two claims have, and were intended to have, a different scope. Construing

³ The specification of the ‘424 patent concludes with the traditional caveat: “The foregoing description has been limited to a specific embodiment of this invention. It will be apparent, however, that variations and modifications may be made to the invention with the attainment of some or all of its advantages. Therefore, it is the object of the appended claims to cover all such variation and modifications as come within the true spirit and scope of the invention.” ‘424 patent, col. 3, ll. 53.59

the “control means” limitation of claim 7 to require a liquid level sensor or equivalent in combination with the on-off switch 28, as MDI does, would mean that claim 7 has essentially the same scope as claim 8, and that claim 8 is superfluous. Because the law presumes the contrary, the doctrine of claim differentiation supports HPI’s construction of claim 7. *See, e.g., Free Motion Fitness, Inc. v. Cybex International Inc.*, 423 F.3d 1343, 1351 (Fed. Cir. 2005); *Wenger*, 239 F.3d at 1233 (holding that claim differentiation “is clearly applicable where there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims”); *See also Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998).

MDI misstates the law when it argues that the doctrine of claim differentiation does not apply when construing means-plus-function limitations. *See* MDI’s Memo., p. 11. It is true that the judicially created doctrine of claim differentiation, which is admittedly not a “hard and fast” rule of claim construction, cannot be used to override or contradict those settled principles of law regarding the proper construction of a means-plus-function limitation which are recognized to be “hard and fast.” Thus, for example, the doctrine of claim differentiation cannot be used to import functional details from the specification of a patent into the claimed function of a means-plus-function limitation if those details are not part of the claim language itself. *See, e.g., Micro Chemical v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999). Similarly, the doctrine of claim differentiation cannot be used to import structures into the corresponding structure of such a limitation if those structures do not actually perform the claimed function. *See Wenger Mfg.*, 239 F.3d at 1263; *Asyst Technologies*, 268 F.3d at 1369-70; *Axcelis Technologies*, 66 U.S.P.Q.2d at 1041. However, the doctrine of claim differentiation can be, and is often used, as it is being used here by HPI, to confirm that these settled principles of law have

been properly applied. *See, e.g., Free Motion Fitness*, 423 F.3d at 1351; *Wenger*, 239 F.3d at 1263.⁴

MDI has offered no alternative explanation for why the "liquid level sensor" limitation is found in dependent claim 8 but not in claim 7, the independent claim from which claim 8 depends. In such a setting, where the limitation that is sought to be "read into" an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004); *Wenger*, 239 F.3d at 1233.

D. HPI's Construction of the Corresponding Structure For the "Control Means" Limitation is Also Confirmed By the Prosecution History of The '424 Patent

MDI distorts the prosecution history of the '424 patent when it argues that the history, in particular, the PTO Examiner's statement of reasons for allowance in one Office Action, confirms its proposed construction of the "control means" limitation of claim 7. MDI's Memo., p. 12.

At the outset, it is important to realize that there were two patent applications filed by HPI directed to its water purification system: Serial No. 08/790,750, filed on January 1, 1997 (the "'750 application"), which resulted in the issuance of United States Patent No. 5,900,212 and Serial No. 09/256,054, filed on February 23, 1999 (the "'054 application"), which resulted in the issuance of the '424 patent. '424 patent, p. 1 (Exhibit 1 to MDI's Memo.). Only the '424 patent is presently being asserted against MDI in this action.

⁴ The cases that MDI cites in support of its argument that claim differentiation does not apply to means-plus-function limitations, *Medtronic, Inc. v. Advanced Cardiovascular Systems, Inc.*, 248 F.3d 1303, 1313 (Fed. Cir. 2001) and *Cross Medical Prods, Inc. v. Medtronic Safomar Danek, Inc.*, No. 05-1043, 2005 U.S. App. LEXUS 21200 at *22 (Fed. Cir. September 30, 2005), both rely solely on *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533 (Fed. Cir. 1991). However, the Federal Circuit, in *Wenger*, made it clear that *Laitram* does not stand for the proposition that a means-plus-function limitation must be interpreted without regard to other claims.

The claims of the '750 application, as originally filed on January 1, 1997, were not limited to water purification systems that included or required a liquid level sensor. In fact, the liquid level sensor was only claimed in dependent claims. Gannon Dec., Exh. A, pp. 8-9. This, together with statements made by HPI during the prosecution of the '750 application, make it clear that HPI did not consider the liquid level sensor to be a required part of the broadest invention:

“A liquid level sensor **may** be included in the system, to prevent the lamp from turning on before it is fully immersed in the water.”

Amendment in the '750 application dated July 17, 1997, p. 5 (Gannon Dec. Exh. B, p. 5).

“As discussed during the interview, the inventive system includes, **in the preferred embodiment**, a mechanism that prevents the ultraviolet light source from turning on until the light source is fully immersed in the water.”

Amendment in the '750 application dated November 18, 1997, p. 6 (Gannon Dec. Exh. C, p. 6).

HPI did not add the liquid level sensor to claim 1 of the '750 application until a final rejection was received. Amendment After Final Rejection dated December 4, 1998 p. 2. (Gannon Dec. Exh. D, p. 2). At that time, HPI stated that it believed that the claims in the '750 application, in particular claim 1, were patentable without the liquid level sensor limitation. *Id.* at p. 4. HPI also stated that it was going to file a continuation application to seek broader claim coverage, i.e., coverage that did not require the liquid level sensor as part of the broadest claims.

“However, **we disagree that the subject matter of claim 1, without amendment, is obvious over the previously and newly cited prior art.** Accordingly, we make the proposed amendment set forth above to move the application to allowance, and **we intend to file a continuation application to seek broader claims.**”

Amendment After Final Rejection dated December 4, 1998 p. 4. (Gannon Dec. Exh. D, p. 4) (emphasis supplied).

In response to the filing of a continuation application (HPI's '054 application, from which the '424 patent issued), the Examiner sent a first of three Office Actions and included the statement of reasons for the indication of allowable subject matter that MDI cites to in arguing that the liquid level sensor is a required part of the invention (see MDI's Memo., p. 12). In response to this first Office Action, HPI continued its insistence that the liquid level sensor limitation was not required in the broadest claims.

“We disagree that the invention set forth in claims 1, 5 and 7 is obvious in light of United States Patent 5,276,256 to Karamian.”

Amendment in the '054 application dated June 23, 1999, p. 3 (Gannon Dec. Exh. E, p. 3) (emphasis supplied).

In other words, HPI indicated that it disagreed with the Examiner that the liquid level sensor was required to distinguish over the prior art Karamian reference. Claim 11, which became claim 7 in the '424 patent, was added at the time of these remarks. The liquid level sensor was not recited in claim 11. Claim 12, which depended from claim 11 and became claim 8 of the '424 patent, expressly recited the liquid level sensor limitation. The Examiner capitulated in HPI's position by allowing claim 11 to issue without the liquid level sensor limitation. If anything, this prosecution history confirms that HPI's construction of the “control means” limitation, not MDI's, is the correct one.

MDI also distorts the prosecution history of the '424 patent when it argues that MDI cannot infringe claim 7 under the doctrine of equivalents because the “control means” limitation in what became claim 7 of the '424 patent was the result of a narrowing amendment made by HPI for patentability reasons, i.e., to avoid cited prior art. See MDI's Memo., pp. 14-15. There is simply no support in the prosecution history of the '424 patent for this argument.

Claim 11 in the '054 application (which became claim 7 in the '424 patent) originally recited the limitation:

“means for turning on the lamp, the means contained in the case.”

Amendment in the '054 application dated June 23, 1999, p. 1-2. (Gannon Dec., Exh. E, p. 1-2)

HPI amended the claim 11 for clarity to read, in pertinent part:

“control means for turning [on] the [lamp] light source on and off, the control means being contained in the case.”

See, Amendment in the '054 application dated November 18, 1999, p. 3. (Gannon Dec., Exh. F, p. 3).⁵

There is nothing in the Remarks section of this Amendment to suggest that the changes to the “control means” limitation were being made to distinguish over prior art. *Id.* at p. 6.

Throughout the prosecution of the '054 application, HPI continued to express its position that the broadest claims in the application did not require the liquid level sensor, and continued to pursue claims that did not include or require the liquid level sensor. When the '424 patent issued, claim 7 remained. The survival of this claim, consistent with HPI's expressed purpose in filing the '054 application in the first place, supports HPI's proposed construction of claim 7. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 909 (Fed. Cir. 2004).

In any event, MDI's arguments regarding the alleged unavailability of the doctrine of equivalents for the “control means” limitation are irrelevant for the purposes of the present

⁵ According to standard patent prosecution convention, the underlined terms were added by the amendment and the bracketed terms were deleted.

Motions. As discussed below, MDI's AquaStar products literally satisfy that limitation.⁶ There is no need for HPI to invoke the doctrine of equivalents.

E. There Are Genuine Issues of Material Fact Regarding Whether MDI's Accused Products Include, or Have Ever Included, a Liquid Level Sensor Or Equivalent Structure

Even if, notwithstanding the above analysis, the Court agrees with MDI's construction of the "control means" limitation of claim 7, the evidence shows that there are genuine disputes of material fact that preclude the entry of summary judgment of noninfringement in MDI's favor.

As shown by the Maiden Dec., MDI's web site and published literature regarding its accused AquaStar products are replete with references to a **gold water probe**, a **gold probe** and a **gold pin**. Maiden Dec., pars. 8-13. These references clearly indicate that, if the ultraviolet lamp in the AquaStar products does not turn on, the user should check to be sure that the water in the bottle is at a level that it contacts the gold water probe, gold probe or gold pin. *Id.*

MDI concedes that the term "liquid-level-sensor," as used in the '424 patent, means a sensor which detects the presence of water. See Defendant Meridian Design Inc.'s Submission of Its Proposed Claim Construction, filed with the Court on November 10, 2005 ("MDI's Claim Construction Statement"). A "probe" is clearly a sensor. A "water probe" is a sensor that detects the presence of water. MDI's web site and product literature are clearly calculated to convey the fact that the gold water probe, gold probe and/or gold pin in the AquaStar products perform the function of detecting the presence of water in the bottle. Undoubtedly, the website and literature references are intended to suggest to a user that the AquaStar products have a

⁶ Additionally, the doctrine of prosecution history estoppel does not, and cannot, affect the statutorily guaranteed range of equivalents accorded to the corresponding structures of a means-plus-function claim limitation under 35 U.S.C. §112 ¶6. See *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1347-48 (Fed. Cir. 2001). Such a limitation is literally satisfied even if the accused product uses a structure that is not identical but only equivalent to the corresponding structure described in the patent specification that performs the function recited in the limitation. *Id.* at 1349.

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In sum, questions exist whether the gold pin in the AquaStar products is part of a liquid level sensor or equivalent structure, whether it has ever been operative to prevent the UV lamp in the AquaStar products from turning on if not in contact with water, and/or whether the gold pin has just recently been disconnected or disabled pending disposition of MDI's Motion. Accordingly, even if the Court agrees with MDI's construction of the "control means" limitation, MDI's Motion should be denied, and HPI allowed to proceed with further discovery, so that it can determine the true facts. See *Resolution Trust Corp. v. North Bridge Assoc., Inc.*, 22 F.3d 1198, 1203 (1st Cir. 1994); Fed. Rule Civ. P. 56(f). The existence of these unanswered questions precludes entry of summary judgment of noninfringement of claim 7 of the '424 patent in MDI's favor.

III. ARGUMENT IN SUPPORT OF HPI'S CROSS MOTION

HPI agrees with the law regarding summary judgment in patent infringement cases as it is set forth in MDI's Memo. See MDI's Memo., pp. 5-6.

Applying these legal standards to the facts of record in this matter establishes that HPI is entitled to summary judgment that MDI's accused AquaStar products literally infringe claim 7 of the '424 patent.

HPI's proposed construction of "control means" of claim 7 of the '424 patent is correct for the reasons set forth above in section II, sub-sections A through D above. The proper construction of the "control means" limitation of claim 7 of the '424 patent does not include or require a liquid-level sensor. Other terms in claim 7 potentially in dispute should be construed as proposed by HPI for the reasons set forth in its claim construction statement filed on November 10, 2005. See HPI's Claim Construction Statement, pp. 1-13.

The Claim Chart of Exhibit A hereto demonstrates, by reference to MDI's admissions from its web site and product literature and papers submitted in support of MDI's Motion, and the Maiden Dec., that the accused AquaStar products literally satisfy each and every limitation of claim 7.

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Accordingly, it is apparent on the present record that there are no genuine disputes of material fact regarding the AquaStar product's infringement of at least claim 7 of the '424 patent.

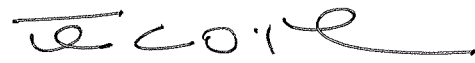
Partial summary judgment that the accused AquaStar products infringe at least that claim should thus be granted.

IV. CONCLUSION

For the foregoing reasons, MDI's Motion should be denied and HPI's Cross Motion should be granted.

Hydro-Photon, Inc., Inc.
By its attorneys,

Dated: 11/29/05



Thomas C. O'Konski BBO #378,265
John L. Capone BBO #656,150
Kevin Gannon BBO #640,931
CESARI and MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210
Telephone: (617) 951-2500
Facsimile: (617) 951-3927

COUNSEL FOR PLAINTIFF, HYDRO-PHOTON,
INC.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 28th day of November, 2005, a copy of the foregoing document is being served by First Class mail upon the following counsel for the defendant:

Christopher Centurelli, Esq.
Jeffrey L. Snow, Esq.
Kirkpatrick & Lockhart
Nicholson Graham LLP
75 State Street
Boston, MA 02109

Peter M. Midgley, Esq.
Holland & Midgley, LLP
802 West Bannock Street
Suite 305
P.O. Box 1840
Boise, ID 83701

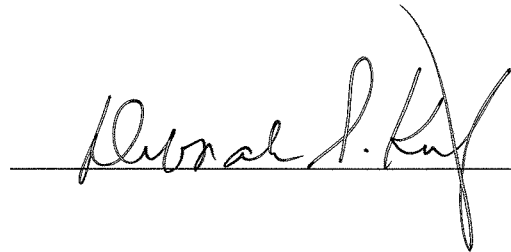
A handwritten signature in black ink, appearing to read "Donald S. Kaufman", is written over a horizontal line.

EXHIBIT A

U.S. Patent No. 6,110,424
Claim Chart
AquaStar and AquaStar Plus!

<p>7. A hand-held system for purifying unsterilized water, the system including:</p>	<p>To the extent the preamble is construed to be a limitation of the claim, it is met by the AquaStar and AquaStar Plus!, which a user is directed to immerse in a water-filled bottle and “hold the bottle...” www.uvaquastar.com/info_pages.php/pages-id/32.</p>
	<p>“Meridian manufactures and sells an ultraviolet portable water purifier product called the AquaStar. Defendant Meridian Design, Inc.’s Statement of Material Facts (“MDI Fact Statement”) Fact 11.</p>
	<p>“Meridian also manufactures and sells a product called the AquaStar Plus!, which includes the same features as the AquaStar” MDI Fact Statement, Fact 12.</p>
	<p>“The AquaStar is of a size permitting it to be easily held in the hands of a human user.” Declaration of Miles Maiden in Support of Hydro-Photon, Inc.’s Cross Motion For Partial Summary Judgment of Infringement (“Maiden Dec.”), par. 3.</p>
<p>A. a drinking container having at one end an opening through which water both enters and exits the container and a second closed end for holding the water in the container;</p>	<p>“And we also supply a quality polycarbonate bottle with our purifier” www.uvaquastar.com/info_pages.php/pages-id/16</p> <p>Polycarbonate plastic (equivalent to LEXAN® brand), 32 ounce (1L) wide-mouth) www.uvaquastar.com/info_pages.php/pages-id/34</p>
	<p>“The AquaStar product includes a bottle with an opening...” MDI Fact Statement, Fact 13.</p> <p>“The AquaStar includes a polycarbonate bottle having an open, threaded end. The bottle can hold water, and water can be drunk from the open end of the bottle.” Maiden Dec., par. 4.</p>
<p>B. a case with an outwardly extending ultraviolet light source, the light source for submerging in the unsterilized water that is held in the drinking container and providing</p>	<p>“low-profile weather-sealed electronics package” www.uvaquastar.com/info_pages.php/pages-id/31</p> <p>(control head, UV-C tube, battery cap attached) www.uvaquastar.com/info_pages.php/pages-id/31</p> <p>UV-C Tube: Philips TUV4T5 Germicidal 4W UV-C (254</p>

<p>ultraviolet emissions that purify the unsterilized water,</p>	<p>nm) Sterilamp®, hot-cathode, low-voltage. www.uvaquastar.com/info_pages.php/pages-id/34</p> <p>“The electronics head is completely sealed against water, sand, and gases.” www.uvaquastar.com/info_pages.php/pages-id/16 www.nam.lighting.phillips.com/us/ecatalog/special/displayspecial.php?id=45 (and mercury www.nam.phillips.com/us/ecatalog/msds/S06-94008.pdf)</p> <p>“The cap includes an ultraviolet bulb mounted to the cap and orientated to extend into the bottle when the cap is screwed onto the bottle.” MDI Fact Statement, Fact 13.</p> <p>“The AquaStar includes a control head or case with a screw-on cap extension that can be screwed onto the open, threaded end of the polycarbonate bottle. An ultraviolet lamp extends from one end of the case so that, when the case is screwed onto the bottle, and the bottle is nearly full with water, the ultraviolet lamp is fully submerged in the water.” Maiden Dec., par. 5.</p>
<p>C. control means for turning the light source on and off, the control means being contained in the case.</p>	<p>“To start cleaning cycle, press and hold the button for about two seconds and release. The tube will light and glow blue, and the LED in the cap will glow orange while the cleaning cycle runs.” www.uvaquastar.com/info_pages.php/pages-id/34</p> <p>“The cap contains batteries for providing power to the ultraviolet bulb and a switch for turning the bulb on and off.” MDI Fact Statement, Fact 13.</p> <p>“The on-off button mechanically connects inside the case to the contacts of a switch that is used in turning the ultraviolet lamp on and off. Through the switch a signal is provided to a microcontroller that controls the voltage supplied to the gate of a field effect transistor. The gate of the field effect transistor opens and closes such that the transistor operates as a switch, to control the supply of power to the lamp.” Maiden Dec., par. 7.</p> <p>Meridian agrees with HPI that the recited function of the control means limitation is “turning the light source on and off”; the disclosed structure in the ‘424 patent that performs the recited function is on-off switch 28 and switches (not shown) that connect and disconnect the</p>

	source of power (e.g., ballast circuitry 13 and battery 14) and lamp 12; the accused AquaStar products perform the function of turning their UV lamp on and off using the button and switches contained in their control head (i.e., case) that connect and disconnect the battery power source and the UV lamp, and thus perform the identical function using structures that are identical or equivalent to the corresponding structure.
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